Calculation: RF-Exposure

Type identification: **77V13CRN**

In accordance to the **CFR Part 47, §1.1310**

S: Limit for power density according to
       - CFR Part 47, §1.1310:   10 W/m^2

P: 0.112 W (20.5 dBm, rms value, refer clause 5.4 of test report F201003E1)

G: 0 dBi = 1 (Power is measured as radiated power)

D: Duty cycle: 100 % = 1

R: Distance in what the limit of S has to be reached: 0.2 m (refer also to the manufacturers installation / user manual)

$$S = \frac{P \cdot G \cdot D}{4 \cdot \pi \cdot R^2} \quad \Rightarrow \quad \underline{\underline{S}} = \frac{0.112 W \cdot 1 \cdot 1}{4 \cdot \pi \cdot (0.2\,m)^2} \quad = \quad \underline{\underline{0.22 \frac{W}{m^2}}}$$

The value of the power density is below the limit of CFR Part 47, §1.1310 for the "General population / Uncontrolled Exposure"
Base of the above calculations is the highest peak power measured under extreme operating conditions of the EUT.